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- Views on nursing
- Computers and case mix
- Faculty practice
- A clinical ladder
- A hypertension program
- Setting passing scores
- Nurses' attitudes toward health reforms

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Will Your Computer Meet Your Case-Mix Informational Needs?

JANE FEDOROWICZ

Computers have historically played a secondary role in the running of a hospital. In the early days, the computer was viewed as a tool—an aid to the laboratory technician in the testing process, or a mechanized book-keeping instrument for the billing and payroll department. Little by little, we saw the advent of computerization in other areas of the hospital. Admissions and nurses' schedules were added to the accounting systems, and EKGs were computerized.

Soon, hospitals found that they were purchasing many small computers. Accounting and patient information shared the mainframe computer, but laboratories and other clinical support functions required specialized equipment. Often, these systems were selected by the user departments, with the results being that no coordination or integration would be possible at a later date.

The mandate to base Medicare payments on prospective pricing (using DRGs) will now force hospitals to recognize the importance of integrating their information systems. Case-mix requirements stipulate the use of both medical and patient-care data. Given the scenario described, this task would be close to impossible. Hospitals are now asking: "Short of

starting over, can we adapt our information systems to meet the needs of prospective payment?"

The outlook is not as bleak as it appears thus far. Let us begin to answer this question by ascertaining the requirements of a case-mix system.

Case-Mix Requirements

The Medicare prospective-payment system will place new demands on the hospital information system (HIS). Data from the general ledger, medical records, and billing must be combined to unite the diagnosis for a patient with services received and the cost of those services. For the first time, management will have to monitor physician actions and medical record procedures to ensure that the hospital is providing the correct mix of services to its patients and that it is doing so in a cost-efficient manner. What specific changes will this entail?

The major alteration resulting from the new government requirements mandates a change in management philosophy. A hospital has always been run as two separate organizations—the administrators control the finances and resources of the hospital, and the medical organization directs the volume of services provided to the patient. HISs have supported this dichotomy by providing financial and utilization data for management purposes and clinical information to support the medical functions. The

change in philosophy results from the need for administrators to manage and control the utilization of resources and the cost of services for the overriding purpose of keeping the hospital solvent. Administrators will need integrated HISs to provide this utilization information.

In addition to the Medicare application, administrators are discovering that case-mix measurements have other uses in the hospital. These classification schemes are being applied to budgeting, planning, utilization review, and quality assurance. The basic requirements for each of these applications are the same: integration of financial and patient data. However, researchers have noted that each use of case-mix classification may require a different set of data, for example, different factors than those used for quality assurance are needed to classify patients for prospective payment schemes. In a study by the Hospital Research and Educational Trust, nine distinct classification schemes were identified [1]. Table 1 lists them, along with the major development objective of each.

The principle factor in most of these schemes is diagnosis (admitting and/or discharge); other important factors include the presence or absence of surgery, type of surgery, complications, comorbidity, severity of illness, age, and type of care. The designer of a case-mix system must be aware that

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Table 1. Purpose of Classification of Nine Case-Mix Schemes.

Utilization Review	Reimbursement	Quality Assurance	Management
Diagnosis Related Groups ICD-9-CM List A	MD-DADO Patient Management Categories	AS-SCORE Disease Staging Severity-of-Illness Index	Generic Algorithms VA Multi-Level Care Groups

the same set of patient categories may not be appropriate for every application in the hospital. The system can and should be designed to accommodate different uses, especially now that administrators are finding that detailed utilization data are necessary for improving the financial performance of the hospital.

In a special report by the American Hospital Association on the management implications of the changes in Medicare policy, strategies for employing case-mix schemes for better financial management were developed [2]. These include methods for increasing productivity levels and better management of length of stay. Table 2 summarizes the strategies proposed by the AHA.

Parallels to many of these strategies have been employed in the business world for years. Hospital administrators are now encountering the same problems that businesses have always faced: they must learn how to hold costs down in order to stay in business. The key to maintaining control over costs lies in the quality of information available to managers. In this respect, the Medicare proposal forces the manager to improve his access to information. How this is to be accomplished depends on the status of the HIS in place at this time. We turn now to a discussion of currently available HISs.

Trends in Hospital Information Systems

Initial attempts at computerization in hospitals led to the proliferation of the independently developed, stand-alone systems described earlier. Ball and Boyle classify these as Class A systems [3].

Hospital administrators are now encountering the same problems that businesses have always faced: they must learn how to hold costs down in order to stay in business. The key to maintaining control over costs lies in the quality of information available to managers.

As HISs became more advanced, some integration was introduced, usually based on financial applications. Integration categorizes a system as Class B in Ball and Boyle's terminology. A Class B Level 1 system primarily provides billing support. In these systems, admissions/discharge/transfer (ADT) and order

entry interface with the billing system, providing a mechanism for charge capturing. Level 1 systems contain records of patient stay, but do not provide any continuity over time, since they are constructed to accommodate the billing function. Thus, medical records and test results must be maintained separately.

When a Class B system is capable of retaining historical medical record data, it is considered a Level 2 system. When an order is placed, the billing component is updated, and a historical record is the state of the art in HISs today.

Ball and Boyle also describe a Class C system, which is based on the medical record. The crux of this system is medical data rather than financial or administrative data, as in a Class B system. Few of these systems have been implemented, and they are still in the experimental stage.

An HIS can be obtained through three channels. These include time-sharing and shared-service vendors, purchased systems, and inhouse development. All three have been available for more than 20 years.

The price of hardware compels many hospitals to go outside for computer access. Time-sharing and shared-service vendors provide both hardware and software to hospitals. The hospital that cannot afford to purchase a machine or employ the extensive manpower needed to support the data processing function can pay these firms to use their programs and facilities. However, as the price of hardware plummets and HISs are developed for smaller computers, this alternative has become less attractive to even the smaller hospitals [4,5].

Most medium- to large-sized hospitals have found that the best source of applications software has been the commercial vendor. Hospitals can purchase software for most of their applications from firms specializing in the development of generalized application programs or can commission a vendor to develop a special application.

If a particular application is not available commercially, or if many changes to an off-the-shelf system must be made to render it useful to the hospital, the application may be developed inhouse. This is more time-consuming and more expensive than

Table 2. Case-Mix Financial Management Strategies.

Productivity Improvements	Length-of-Stay Management
Personnel Budgets	Discharge Planning
Inventory Management	Referrals to Other Providers
Utilization Evaluation of Capital, Equipment, and Services	Monitoring/Reductions in Inpatient Service Usage
Capital Investments Analysis	Internal Utilization Review and Quality Assurance Programs

purchasing a commercially available system and is only recommended for applications that cannot be obtained from a vendor.

In a recent study of Chicago-area hospitals, 30 percent of the hospitals had inhouse hardware only, 35 percent used an outside service vendor, and 35 percent used both inhouse and outside service vendors [6]. For current inhouse users, 35 percent of software programs were modified from a purchased package, 29 percent were developed by the inhouse staff, and 35 percent were developed entirely by outside contractors. [6].

The Chicago hospitals were also asked to estimate the percentage of total data processing services used by their financial, clinical, and administrative functions. The response demonstrates hospitals' orientation toward computerizing financial and administrative tasks: financial applications made up 73.8 percent of all data processing performed; clinical functions, 12.6 percent; administrative/statistics, 11.4 percent; and other, the remaining 2.2 percent.

Many of these financial applications are needed for a case-mix payment scheme; however, a true management tool requires the integration of clinical and patient information, found only in Level 2 or Class C systems. Unfortunately, most hospitals do not have these types of systems. Jacobs surveyed U.S. hospitals and found that, of those with more than 50 beds, 98 percent have computerized business and financial systems, in-hospital or shared. Approximately 700 of the 4,800 U.S. short-term hospitals have installed Level 1 HISs. Approximately 200 have installed Level 2 HISs [7].

Recent announcements of Level 2 systems' availability on small computers should alleviate this somewhat. These new systems should make HISs affordable to smaller hospitals, who had been left behind because of the high cost of large-scale integrated systems.

HIS Applications

The number and sophistication of HIS applications vary greatly across hospitals and vendors, whether or not they are considered Class A or Class B systems. Inevitably, however,

The bottom line is that very few hospitals will be able to easily adapt their present HIS to a full-fledged case-mix payment and planning system.

hospitals tend to computerize laboratory and financial applications early on, following these with administrative and other support functions [8]. This observation is supported by the HFMA study, which included a survey of computerized applications in the 77 responding hospitals [9]. The responses indicate that most of these hospitals do not have a fully integrated HIS that could provide the comprehensive set of information needed for a case-mix system capable of monitoring costs and services to the hospital. According to Kukla and Bachofer, the HIS will need "... to provide information on the types of patients admitted to the hospital and the types of services offered to patients during their hospital stay. They also will be equipped to handle more sophisticated analysis of those factors that determine the total cost of hospital services, including the volume of services produced, productivity of resources used, and price of resources. In addition, hospitals will develop greater sophistication in forecasting cost and utilization" [10].

These capabilities imply that the HIS will be an integrated system providing on-line entry and retrieval of all patient-related service data in the hospital. The requirements of case-mix also imply that the HIS maintain a high level of reliability in the content and completeness of its data base. Where do hospitals stand relative to the requirements of such a system?

Most medium- to large-sized hospitals have found that the best source of applications software has been the commercial vendor.

To answer this, let us examine some of the results of the Chicago HFMA survey. Respondents were asked to indicate whether each application area (in a list of 95) was performed manually or on the computer, or if plans for automation were approved for implementation in the near future. A subset of 26 applications that are considered representative of the applications needed for case-mix construction are contained in Table 3.

The survey shows that most (but not all) of the hospitals have computerized their admissions and billing functions, which are two of the sources of data required in a case-mix application.

Smaller numbers of hospitals have financial and administrative support for management tasks of budgeting and planning. The laboratory and pharmacy are somewhat automated, although they probably use a stand-alone minicomputer in many hospitals. The remaining necessary applications are computerized in only a small percentage of the responding hospitals.

Medical records and ancillary services remain manual systems in the majority of these hospitals. Two-thirds of the hospitals do not plan on implementing interdepartmental communications in their medical areas in the foreseeable future. Applications such as nurse staffing, which should be part of the planning function, are also not computerized. The bottom line is that very few hospitals will be able to *easily* adapt their present HIS to a full-fledged case-mix payment and planning system.

Case-Mix Implementation

An estimated two years of development time may be required to set up a cost-accounting system for case-mix analysis [11]. Many data processing departments anticipated the new Medicare requirements and began development ahead of time.

One of the first uses of the cost-accounting data produced by a case-mix system should be to verify the case-mix index (CMI) assigned to the hospital by HCFA. A retrospective study of 1980 Medicare billings, on which CMIs are based, could lead to a higher index (and, therefore, higher revenue). Additional benefits may also

Table 3. 1981 HFMA Survey Results

Application Area	Totally Manual	Automated	System Status within 1 Year	1-3 Years	Total Responses
Administrative					
Key Factor Performance Statistics	24	24	6	12	66
Forecasting/Simulation	27	15	7	14	63
Admissions					
Patient Information Collection	4	54	8	9	75
Patient Transfers and Discharge	5	58	8	6	77
Business Office					
Inpatient Billing	1	66	5	4	76
Medicare/Medicaid Reporting	18	44	6	4	72
Financial Analysis of Department Performances	7	54	7	6	74
Annual Budget Preparation	16	43	8	8	75
Exception Reporting of Performance Analysis	25	33	6	7	71
Rate Setting	37	16	6	10	69
Clinical Laboratory/Pathology					
Daily Log of Tests Requested	28	22	11	11	72
Online Data Acquisition	22	23	11	10	66
Charge Capturing	20	35	9	10	74
Radiological Services					
Results Reporting	44	7	7	14	72
Medical Areas-Common Functions					
Order Entry	34	18	6	16	74
Results Reporting	40	9	5	19	73
Progress-Reports (observations, diagnoses)	48	5	1	17	71
Interdepartmental Communications	47	10	4	11	72
Medical Records					
Patient-Number Retrieval	25	23	13	10	70
Disease Index	28	24	5	14	71
Patient-Record Storage and Retrieval	49	9	5	11	74
Utilization Review	40	12	5	14	71
Nursing Services					
Results Reporting and Chart Preparation	47	9	3	16	75
Staffing and Patient-Load Records	50	5	6	13	74
Pharmacy					
Filling Medication Orders	35	18	11	12	76
Patient Drug Profiles	26	23	13	11	73

be incurred by this activity. Rodney Klein of the Jewish Hospital of St. Louis discusses these benefits: "You develop a profile by physician and product line, at least on the revenue side. You can pinpoint trends and get valuable management and marketing information by going back to 1980" [12].

The retrospective studies can be coupled with demographic information to provide the manager with forecasts of the changing service requirements of a shifting population.

As can be imagined, this type of system will require data from many computer files. Let us examine some alternative sources of data and processing.

Shared-service vendors comprise one source of case-mix applications. Typically, service is limited to Medicare billing and DRG computation. Advanced applications for cost accounting and planning purposes are not yet available through this outlet. However, these shared-services can be used to fill the gap until a tailored

system is introduced into the hospital.

Some commercial vendors have incorporated DRG analysis into their HISs. Hospitals currently using their systems can add on a module for the new billing system. Again, these systems provide the minimum analysis, and sophisticated decision support is not yet available.

Inhouse development or contracting with consultants are the only currently feasible alternatives to providing the decision-support capabilities that administrators want and

need. There are ways of providing this support. One is to use the hospital-wide data base and computer system, and the other is to "down-load" needed data to a microcomputer for the administrator's use. Both have their advantages.

The degree of difficulty in accessing an HIS for the new application depends upon the way in which the data are stored. Many HISs are "file-based"; each application has its own file containing all of the data needed to run its programs. If more than one application uses overlapping pieces of data (for example, patient name and number), these are replicated in each file. When a new application is to be developed with new data requirements, new files are created. In order for an administrator to access the data stored in this way, the application will be limited to accessing data currently stored, or new files will have to be constructed. Both require a great deal of development time. Some hospitals circumvent the problems of a file-based system by manually computing and/or entering DRGs to the Medicare billing system. This shortcut method should be only an interim step until a better system can be implemented.

Many hospitals have replaced their file-based systems with data-base technology. A data-base management system (DBMS) is a collection of interrelated data that can be used by many applications through a common base of software. DBMS software adds great flexibility to an HIS, enabling changes to be made to the data base or to the programs' accessing it with less effort and less expense than in file-oriented systems. DBMS technology is used in some, but not all, Level 2 and Class C systems. A DBMS provides the level of integration needed for obtaining accurate cost information [13]. In addition, most have a user-oriented query facility that allows the nonprogramming user to access and manipulate the data base. It is this query language that would enable the administrator to directly ask planning-related questions of the system without having to wait for a program to be written. One caution should be noted here: query languages require a great deal of system time and overhead, taking away computational power from other applications using the data base.

One of the first uses of the cost-accounting data produced by a case-mix system should be to verify the case-mix index (CMI) assigned to the hospital by HCFA.

Care should be taken that normal hospital processing does not suffer due to its overuse.

This caution is one of the main reasons for providing the administrator with a microcomputer (and it applies to a file-based system, as well). Historical usage data can be copied to a microcomputer, freeing up valuable mainframe time. The micro user has the full use of the system and its data, and can manipulate it in any way without affecting other hospital users. New, easy-to-use software, including decision-support systems, spread-sheet analysis, and word-processing programs, render the micro accessible for most uses. These systems are cheaper than their mainframe counterparts; their major limitations are the smaller amount of data that can be accessed and their slower manipulation speed.

All of these technologies can be used to derive different case-mix constructs for the diverse objectives of a particular hospital. Obviously, a DBMS or microcomputer will simplify the process, but file-based systems are also feasible. The key problem is whether or not all of the requisite data are being collected, and, if so, whether they are accessible in the form needed by the case-mix programs. An equally important issue concerns the reliability of the data. The old adage, "gar-

New, easy-to-use software, including decision-support systems, spread-sheet analysis, and word-processing programs, render the micro accessible for most uses.

bage in, garbage out," is especially important when all the data upon which decisions are based are stored in the computer.

Conclusion

Hospitals lag behind their corporate counterparts in the sophistication of their computer systems. Much information in hospitals is still processed manually, and that which is computerized is not always accessible in the format or combination needed. When faced with case-mix requirements, hospitals are finding that automation and integration of information are imperative. Improved cost-accounting systems must be developed in order for a hospital to survive in an increasingly competitive industry.

References

1. Plomann, M. E., *Nine Patient Classification Schemes: Development, Description, and Testing*, Chicago: The Hospital Research and Education Trust (1982).
2. American Hospital Association, Medicare payment: Special report 3, legislative summary and management implication, *Healthcare Financial Management*, Vol. 13, No. 8, pp. 47-52. (August 1983).
3. Ball, M. J., and Boyle, T. M., Hospital information systems: Past, present, and future, *Hospital Financial Management*, pp. 12-14 (February 1980).
4. *Modern Healthcare*, IBM unveils HIS for small hospitals, p. 126 (May 1981a).
5. *Modern Healthcare*, NCR, H-P kick off new HIS plans, pp. 118-120 (May 1981b).
6. Hospital Financial Management Association, *Data Processing Information Survey: Chicago Area Hospitals*, Oak Brook, Illinois, HFMA, First Illinois Chapter (1981).
7. Jacobs, S. E., Hospital-wide computer systems: The market and the vendors, *MUG Quarterly*, Vol. 12, No. 3, pp. 1-12 (Fall 1982).
8. Prince, T. R., and Fedorowicz, J., "Hospital Information Systems Development Patterns," presented at TIMS/ORSA Joint National Meeting, Chicago (April 1983).
9. Hospital Financial Management Association, *op. cit.*
10. Kukla, S. F., and Bachofer, H. J., Building up reporting systems, *Hospitals*, Vol. 57, No. 14, p. 79 (July 16, 1983).
11. *Hospitals*, Strategies for change, Vol. 57, No. 13, pp. 58-63 (July 1, 1983).
12. *Ibid.*, p. 60.
13. Fedorowicz, J., and Veazie, S., Automated DRG systems: Unanswered questions, *Hospital Progress*, Vol. 62, No. 1, pp. 54-55, 71 (January 1981).

Nurses, Political Participation, and Attitudes Toward Reforms in the Health Care System

ELISABETH MOORE and DEBORAH OAKLEY

Leading nursing organizations have adopted policy statements supporting change in health care service patterns, including greater recognition and autonomy for nurses. The changes for nurses will be influenced by trends in health care generally, and by changes (or the lack thereof) in the structure of health care institutions, in funding, and in rules and regulations dealing with all aspects of health care. It is, therefore, important to understand more about nurses' attitudes toward changes in our system of care.

Attitudes of nurses and other health care providers, including physicians, optometrists, and physical therapists, have been studied, but in purely descriptive ways, with little attention to analysis of the correlates of attitudes [1-7]. Nor has sufficient attention been paid to the relationship between political participation—a means of effecting change—and nurses' attitudes. Previous studies have shown that nurses tend to register, vote, and participate in higher proportions than does the general population, but these activities have not been linked to attitudes about health care reform [8-10].

The current study was intended to measure the degree of political participation, the types of overall health system change sought by a local group of nurses, and the characteristics associated with varying degrees of support for change. The model specified background, personal, and political variables as affecting attitudes toward change in the system. The tool used was adapted from a questionnaire developed and used by the Office of Public Affairs of the National League for Nursing, supplemented by items adapted from a series of studies on elections and political participation [11-15]. Content validity of the original instrument was enhanced by the participation of the NLN staff, who are experts in public affairs, and by

review of the instrument by policy participants on the faculty of the University of Michigan. As outlined by Moore, a test-retest procedure was used to estimate the reliability of the questionnaire [16]. A convenience sample of 18 registered nurses, representing a variety of backgrounds and work settings, completed the questionnaire. Approximately one week later, the same individuals completed the questionnaire a second time. Eighty-eight variables were matched and tested for reliability using the chi-square test, since the responses were categorical. For 73 percent of the variables, there was agreement on the test-retest. Two-thirds of the remaining variables had multiple categories, with responses generally in the same direction or categories in both tests. Items with low reliability were eliminated from analysis.

Eleven items on political participation provided a measure of the number of political activities in which each respondent participated. The internal consistency of this scale was tested by Cronbach's alpha, which was a satisfactory 0.78 [17]. Another scale was developed by averaging the ratings given to four items that dealt with the appropriateness of nurses' roles in politics. Cronbach's alpha for this scale was a moderate, but acceptable, 0.69.

Finally, 12 items that measured whether the respondent favored change in the health care system did not achieve an entirely satisfactory reliability coefficient, with a Cronbach's alpha of only 0.59. Factor analysis, using a principle components solution with one iteration and varimax rotation, showed that these items grouped themselves into five different factors. In other words, the reliability coefficient was low because the items measured several dimensions.

Method

In July, 1980, a six-page, 41-item, closed-ended questionnaire was mailed to a one-in-nine sample of registered nurses licensed by the State of Michigan in 1979 and residing in the (then) Second Congressional District of

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Table 1. Percentages Agreeing and Disagreeing with Items on Nurses' Roles in Politics*

Item	Percentage				$\bar{X}$
	Strongly Disagree (1)	Somewhat Agree (2)	Somewhat Disagree (3)	Strongly Agree (4)	
I feel it is all right as part of the professional role for nurses to participate in politics.	2.2	16.1	2.9	78.8	3.71
It is natural as part of the professional role for nurses to seek political careers.	4.4	32.4	27.2	36.0	3.0
Political participation is very important for nurses.	2.9	34.8	8.7	53.6	3.39
Nursing organizations should help nurses be effective political participants.	6.5	30.2	12.2	51.1	3.26
				Index Average	3.34

*The first two items are reversed from the wording presented on the questionnaire in order to construct an overall average score.

Michigan. One follow-up postcard was sent as a reminder. Five hundred questionnaires were mailed; 389 were deliverable (the list was one year old). Of these, 153 were returned, for a response rate of 38.6 percent (a rate comparable to other mail surveys, including those with nurses as respondents) [18].

Characteristics of the respondents

Slightly more than 97 percent of the respondents were female. The average age was 41.4 years; 38 percent were under 35 years of age, and 25 percent were over 50. Eighty percent were currently employed in nursing, with 64 percent customarily working a 40-hour week, 32 percent working less, and 4 percent working more than 40 hours weekly. A relatively large proportion, 33.3 percent, held a baccalaureate in nursing. Forty percent had graduated from diploma programs, 12 percent held an associate degree in nursing, another 12 percent had master's degrees, and 2 percent had obtained doctorates.

Sixty-five percent of the nurses in the study worked within a hospital or nursing home setting, and almost 13 percent were employed in a community or occupational health setting. Fifteen percent were faculty members, clinical nurse specialists, or upper-level hospital administrators, and 7.5 percent worked in doctors' offices or were nurse practitioners.

When compared to national statistics on the characteristics of nurses, the sample reported here was similar to the national figures in its distribution by sex and in labor force participation rates, but was more highly educated and held positions that are associated with greater educational preparation [19].

Results

Respondents generally approved of nurses' participation in politics. As shown in Table 1, for the four items constituting a variable called "political role of the nurse," almost everyone agreed, either strongly or somewhat, that participating in politics is compatible with nurses' professional role. More than 80 percent strongly or somewhat agreed that political participation is very important for nurses and that nursing organizations should help nurses to be effective in politics. The least support was provided for the idea

that it is natural for nurses to seek political careers, but two-thirds favored even this item. On a scale of one to four, with four assigned to "strongly agree," the average score for the entire index was 3.34, clearly on the end of the scale favoring political participation as an approved part of the role of nursing.

Nurses in this study reported a high level of participation in the political process, as shown by scores on the participation variable constructed from the items shown in Table 2. Almost all were registered to vote at the time of the survey and said that they usually voted in elections for President. Two-thirds or more said that they usually voted in primaries and in elections for their city council, mayor, and school board. A similar proportion had made at least one persuasive contact with an elected official. The least popular activities were "influencing others to contribute time or money to a candidate" and "joining a political party," but more than one-quarter had done one or both of these activities. Six percent said that they had participated in all of the activities listed, and everyone reported participating in at least one; more than 80 percent had participated in five or more, and more than two-fifths reported that they had participated in eight or more activities.

Table 2. Percentage Participating in Political Activities

Activity	Percentage Participating
Usually vote in elections for president	96.4
Registered to vote	94.3
Usually vote in city council or mayoral elections	81.0
Usually vote in primaries	68.2
Ever written a letter or telephoned an elected official to try to influence their vote on any issue	65.3
Usually vote in school board elections	63.2
Ever worn a campaign button or placed a campaign sticker on the car bumper	56.8
Ever contributed to a political party or an election campaign	48.6
Ever worked on behalf of a candidate for political office	33.8
Ever joined a political party	31.8
Ever influenced others to contribute time or money for any candidate for elective office	29.9
Average Score = 6.3 activities	

Table 3. Percentages Agreeing and Disagreeing with Items on Perceptions of Nurses' Current Political Activities

Item	Percentage				
	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	$\bar{X}$
I feel that family responsibilities have kept nurses from participating in politics.	17.0	42.2	25.9	14.9	2.4
Nurses' knowledge about politics is limited.	11.7	35.8	24.8	27.7	2.7

Respondents were fairly evenly divided in their perception of reasons for nurses' participation or lack of participation in politics. As shown in Table 3, 59 percent agreed either strongly or somewhat that family responsibilities have kept nurses from participating in politics, but only 48 percent agreed that nurses' knowledge about politics is limited. Unfortunately, the first item in this index contains two separate parts. Respondents may have felt that nurses do participate in politics. It is impossible to tell whether disagreement conveyed this perception or a disagreement with the explanation given for nonparticipation; the item was eliminated from further analysis.

The last two political variables were "party" and "political thinking." Twenty-three percent considered themselves to be Democrats, 34 percent to be Republican, 37 percent to be Independents, and 6 percent to belong to another party. To measure political thinking, respondents reported whether they were conservative, moderate, or liberal. Twenty-two percent considered themselves to be conservative, 62 percent to be moderate, and 16 percent to be liberal.

The degree of support for change in the health care system was measured using four items about general issues and eight that dealt more specifically with health insurance. As shown in Table 4, the highest degree of consensus, 92 percent, was found to favor reform to control costs and provide adequate care. Two-thirds or more of the respondents favored prevention as a major focus of any national health plan and eligibility for insurance coverage regardless of either medical history or ability to pay. In addition, more than half favored a comprehensive plan for any national health insurance, preferred a comprehensive to a catastrophic plan, and felt that monetary incentives should be used to improve the availability of health care services in rural and inner-city urban areas. Fewer than one-fifth of the sample favored total public (as compared to mixed public and private or totally private) financing of health care. Even fewer were in favor of federal cost controls as a mechanism to contain costs or were against phasing in a national health insurance plan (should one ever be introduced).

Two-thirds of the respondents favored only a moderate amount of change in the health care system; a meager 7 percent favored nine or more of the change items, and 30 percent favored fewer than a third of the items. It appears that the nurses surveyed would have supported cost reforms, substantive changes favoring prevention, and insurance protection for more people, but they would not favor more federal intervention.

To determine the relationships between attitudes and political participation, correlations and analysis of variance were run. Most of the statistically significant coefficients

obtained were not strong, as is often the case in social science research. All relationships cited did not meet the criterion of statistical significance at or below 0.05.

In the sample studied, there were no significant differences in political activity according to age, education, professional organization membership, party, or political thinking. In other words, people who differed on these characteristics had similar levels of political activity, an average of six out of a possible 11 activities for most subgroups. Of all the variables measured, the strongest relationship with participation was for the variable measuring agreement with the idea that nurses' knowledge of politics is limited. Although this variable was not related significantly in the sample as a whole, analysis by strata indicated a significant relationship among those aged 36 to 50 years ($\rho=0.367$, $N=52$) and those who considered themselves liberals ($\rho=0.54$, $N=22$). In both these groups, those agreeing more strongly that nurses' knowledge about politics is limited were more active.

Education was significantly related to attitude ($\eta^2=0.278$, $N=150$). Those with more academic preparation in nursing had attitude scores more favorable to change in the health care system. The mean number of

Table 4. Percentage Favoring Change in the Health Care System

Item	Percent Favoring
Thinks reform is necessary to control costs and provide adequate care	92.4
Thinks preventive services should be a major focus of a health plan	88.8
Feels eligibility for comprehensive insurance should be allowed regardless of medical history	84.3
Feels eligibility for comprehensive insurance should be allowed regardless of ability to pay	68.2
Favors comprehensive national health insurance plan	59.3
Favors a comprehensive over a catastrophic health insurance plan	58.3
Thinks monetary incentives should be used to improve availability of health care services in rural and inner-city urban areas	58.2
Favors including more benefits in any national health insurance plan	36.0
Thinks the federal government should have the primary responsibility for administering a national health insurance plan	16.2
Favors cost containment through federally controlled mechanisms	14.5
Thinks a new health insurance program should be introduced as a total package, not phased in	14.4
Favors total public financing of health insurance	10.6

changes favored, on a 12-point scale, was 4.2 for AD-prepared nurses, 5.4 for diploma graduates, 6.0 for BSNs, and 6.3 for those with graduate degrees.

Three political variables were also related significantly to attitude. Political thinking ($\eta^2=0.218$, $N=129$) and political party identification ($\eta^2=0.218$, $N=129$) were related among the sample as a whole. Those who thought of themselves as liberals favored an average of 6.5 changes, while moderates favored 5.6, and conservatives, 4.7. Democrats favored the most change, with an average score of 6.3, as compared to Independent's 5.6 and Republican's 5.1.

Because the items measuring change were not unidimensional, the five factors produced by factor analysis were also examined in analyzing relationships with other variables. These five factors dealt with the comprehensiveness of any national health insurance plan, the proper federal role in health care, eligibility criteria for health services, the phasing in of any health insurance program, and the range of benefits that government services should provide. Altogether, the five factors explained 60 percent of the variance in the items as a group.

The more highly educated the respondents, the higher the proportion favoring comprehensive government health services ($\eta^2=0.27$, $N=149$) and the higher the number of government-provided health services favored, except that BSNs favored more services than those with graduate degrees ($\eta^2=0.29$, $N=150$). Moderates and conservatives were much less likely to favor a strong federal role in the health care system when compared with people who identified themselves as liberals ($\eta^2=0.23$, $N=138$).

In addition, the higher the number of political activities reported, the larger the proportion favoring eligibility for government health care regardless of ability to pay, medical history, and other restrictions ($\rho=0.173$, $N=129$).

Discussion

In general, the nurses sampled had the expected high level of political activity and favored only moderate change in the health care system. Few supported increasing federal intervention. Seventy-four percent of the Second District nurses favored a combination of private and public financing, and a high proportion favored no change or, at most, incremental change. This proportion was higher than the figures for any sex, age, racial, educational, health status, income, religious, or insurance coverage groups in a representative sample study of the general population in Rochester, New York [20]. However, the Second District nurses were less likely than the Rochester respondents to favor either extreme of mostly individual or mostly governmental coverage.

As expected from work on other topics, the basic background categories produced by educational preparation were significantly related to some of the attitude factors, although these variables have generally been related (along with age and educational preparation) to attitudes about change within nursing [21-23].

The relationship between political participation and one aspect of the change scale suggests that, overall, in the group studied, political activity was related to favoring

change in eligibility associated with attitudes about other elements of change in the health care system. It is likely that nurses in the congressional district were drawn into political activities for reasons other than wanting to effect change in the health care system.

Conclusion

Since the educational distribution of the group studied differed from that of nurses in general, these results cannot be generalized to the profession. However, the findings reported here do suggest that it may be useful to study political participation and attitudes about particular legislative issues as nurses become more involved in politics.

References

1. Allen, D. and Levi, D., "National health and optometry: A survey of public attitudes," *American Journal of Optometry*, 52, 291-300 (1975).
2. Colombotos, J., "Physicians and medicine: A before-after study of the effects of legislation on attitudes," *American Sociological Review*, 34, 318-334 (1969).
3. Colombotos, J., "Physicians' attitudes toward Medicare," *Medical Care*, 6, 320-331 (1968).
4. Colombotos, J., Kirchner, C. and Millman, M., "Physicians view national health insurance: A national study," *Medical Care*, 13, 369-396 (1975).
5. Goldman, L., "Doctors' attitudes toward national health insurance," *Medical Care*, 12, 413-423 (1974).
6. Krug, J., "National health insurance, physical therapists' attitudes," *Physical Therapy*, 59, 733-741 (1979).
7. Levi, D. and Allen, D., "National health and optometry: A follow-up study," *American Journal of Optometry*, 53, 433-438 (1976).
8. Creason, N., "Registration and voting participation of four faculty groups," *Nursing Research*, 27, 5, 325-327 (1978).
9. Archer, S. E. and Goehner, P., "Acquiring political clout: Guidelines for nurse administrators," *Journal of Nursing Administration*, 49-55 (November-December, 1981).
10. Hanley, B. Correlates of political participation by professional women: A comparison of nurses, teachers, and engineers. PhD dissertation, forthcoming.
11. National League for Nursing, News from NLN, press release, (1979).
12. Campbell, A. *The American Voter*. New York: John Wiley & Sons (1966).
13. *The American Electorate: Attitudes and Action*. New York: Holt, Rinehart, & Winston (1979).
14. Milbrath, L. W. *Political Participation*. Chicago: Rand McNally (1977).
15. Miller, W. and Miller, A. H. *The Current Population Survey 1976: American National Election Study*. Ann Arbor: ICPSR (University of Michigan) (1977).
16. Moore, E., "Nurses' attitudes about national health insurance." Master's Thesis, University of Michigan (1980).
17. Nunnally, J. *Psychometric Theory*, 2nd edition. New York: McGraw-Hill (1978).
18. Barton, J., et al., "Characteristics of respondents and nonrespondents to a mailed questionnaire," *American Journal of Public Health*, 70, 823-825 (1980).
19. "American Nurses' Association, 1977-1978 inventory of registered nurses," *The American Nurse*, 12 (October 1980).
20. Stratmann, W., "A study of consumer attitudes about health care: The control, cost, and financing of health services," *Medical Care*, 13, 659-668 (1975).
21. Bloom, J. R., "Changing images of professionalism: The case of public health nurses," *American Journal of Public Health*, 69, 43-46 (1979).
22. Keiser, G. J., and Bickle, I. M., "Attitude change as a motivational factor in producing behavior change related to implementing primary nursing," *Nursing Research*, 29, 290-294 (1980).
23. Wright, E., "Registered nurses' opinions on an extended role concept," *Nursing Research*, 25, 112-114 (1976).

A Clinical Ladder

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Quality patient care can be achieved only if the working environment in which a nurse practices is one that encourages staff development and recognition of self-worth. "Historical patterns of compensating nurses for professional service mitigate against nurses with the highest quality skills rendering acute care to the patients" [1]. The path for advancement in nursing has generally been through promotion in administrative positions. The best nurse became the head nurse, who was often then promoted to supervisor. Dr. Lysaught states that the "hospital promotion ladder has taken them (nurses) further away from the goal that brought people into the profession in the first place" [2]. Hence, the missing link in the reward system needs to be developed and operationalized through a system for clinical advancement in nursing practice. This article shall discuss a model for the development of our clinical ladder at the Greater Baltimore Medical Center in Maryland.

The purposes for a clinical ladder are to provide nurses with the opportunity for advancement while remaining in the clinical field. The program will provide three major benefits. First, the promotional track will encourage those in the hospital to remain, thus reducing nursing orientation time and cost. The second benefit will be the care given to the patient. The quality of care will improve as the skills and competencies of the "bedside" nurse increase. Third, it will encourage nurses that are not working to return to the hospital setting. The literature states that clinical ladders provide increased job satisfaction, improved retention, improved rewards for competence in clinical skills, and maintenance of a high quality of patient care [3-5]. Maslow has described the hierarchy of needs as an interdependent phenomenon, not a stepladder. Hence, while meeting the employee's physiological, safety, and social needs, we must also direct our attention to the quest to satisfy self-fulfillment needs [6].

Herzberg has studied the factors that constitute job satisfaction and dissatisfaction. His work has found that supervision and working conditions are usual determinants of dissatisfaction, while the nature of the work, accomplishments, and responsibilities are associated with job satisfaction. It follows, then, that reasons for staying and job performance are more positively influenced when more "motivators" are provided in the job. Reasons for leaving are identified as factors relating to job security and interpersonal relationships [7].

The goal of the clinical ladder is to provide discrete advancement positions and simultaneously promote job

satisfaction. Studies have shown that, with increased job satisfaction and recognition of performance, there is an improved rate of retention and motivation to excel [8,9]. For example, M. D. Anderson Hospital and Tumor Institute experienced a 25 percent decrease in overall turnover [10]. Thomas Jefferson University Hospital in Philadelphia consistently showed a decrease in its turnover from 50 percent to 25 percent over five years [11]. Rush-Presbyterian-St. Luke's Medical Center claims a decrease of 14 percent in turnover in staff nurse positions since the career advancement system was implemented [12].

With increased retention, the costs for recruitment and orientation decrease. Adjusted for inflation, estimates of the cost for replacing an RN range up to \$2,000 [13]. At Greater Baltimore Medical Center, it has been roughly calculated that it costs between \$2,865 and \$4,785 to hire and orient a new nurse. This figure includes recruitment advertising, the nurse recruiter's salary, processing time, pre-employment physical, and orientation costs (see Tables 1, 2, and 3).

The most serious costs of turnover, however, are not these administrative and procedural costs but the cost incurred on the wards or in the department where the turnover has occurred. There may be a perceptible slowing down in work effort of the employee as the date of her (or his) termination approaches. There is usually no replacement available for a time, and the remaining department members must continue under a greater and more frustrating workload.

Developmental Timetable

The development of the career ladder involves several stages, with many decisions of process and policy needed. To proceed in an orderly manner, the following timetable is proposed:

1. Formation of a Professional Clinical Committee

The success of a clinical-ladder depends a great deal on the committee that develops it. The committee should have equal numbers of supervisors and nonsupervisors and of critical care and noncritical care nurses. The size of the committee should be large enough to provide a wide range of input. The committee members can be volunteers or those selected by management. Our committee consists of eight members.

Once the committee is appointed, there must be a commitment by administration to free the members from their routine duties so that they may develop the clinical ladder. Throughout the developmental process, there

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Table 1. General recruitment and personnel orientation costs for registered nurses

Total RN's hired FY '82-104		
Recruitment		
A. Advertising		\$10,000
Newspaper Ads	(7,800)	
Bank, Publications, etc.	(2,200)	
B. Recruitment Visits		240
(Recruiter Time x \$10)		
C. Nurse Recruiter Time with Nurse		1,500
Average Time with nurse 1 1/2 hr. x \$10)		
D. Processing Costs		26,520
1/2 hr. per nurse x \$4	(208)	
Badges \$3 each	(312)	
Physical exams \$250/each	(26,000)	
	*TOTAL \$38,320.00	
*Average recruitment cost = \$368.00 per RN		
Personnel Orientation		
A. Personnel Orientation		\$.46
(1 hr. x \$4 x 12 sessions ÷ 104)		
B. Inservice		3.46
(2 hr. x \$16 x 12 sessions ÷ 104)		
	*TOTAL \$ 3.92	
*Average personnel orientation cost per RN		

Table 2. Cost to recruit and orient a nursing graduate

Approximately 18 nursing graduates hired in FY '82		
A. General Orientation		\$ 284.88
GN \$7.75 x 32 hrs.	(248.00)	
Instructor \$10.32 x 32 hrs. x 2	(36.00)	
(sessions) ÷ 18		
B. Clinical Orientation (10 weeks)		2,080.00
Weeks 1 through 4		
GN \$7.75 x 160 hrs.	(1,240.00)	
Preceptor \$9.00 x 160 hrs.	(1,440.00)	
Weeks 5 through 6 (each person counted as 1)		
GN 7.75 x 80 hrs. = 620.00	(310.00)	
÷ 2		
Preceptor 9.00 x 80 = 720.00	(360.00)	
÷ 2		
Weeks 7 through 8 (each person counted as 1)		0
Week 9 through 10 (each person counted 1/2 on off shift)		748.20
GN 7.75 x .99	(349.00)	
Preceptor 9.00 x .99 x 80 = 799.20		
÷ 2	(399.60)	
C. Average Recruitment Cost per RN		368.00
D. Average Personnel orientation per RN		34.00
	*TOTAL \$4,785.88	
*Per nurse		

should be open communication with as many members of the profession as possible in order to obtain feedback from all sectors.

II. Clinical Factors of the Clinical Ladder

The first mission of the committee is to develop a list of the many different functions that make up the nurse's job. Truly, the clinical ladder must be made "by the nurse, for the nurse." From the list, the committee then needs to define the major factors or categories, such as clinical practice, education, and research. It is important that these factors be measurable, objective, and applicable to

all nurses. Additionally, the factors must be readily understood in clear terms.

Once the factors are defined, criteria must be developed against which performance will be measured, and several important issues should be kept in mind. For example, can all RNs fit into a performance level with the criteria written? For each performance level, the nurse must either meet or not meet the criteria. Therefore, the criteria must allow for quantifiable and qualifiable standards. With the criteria in place, the minimum acceptable performance for each level must be defined. It is assumed that satisfactory performance at each level presumes continued performance of duties at all lower levels.

The committee, at this point, may wish to determine a weighting scale. A weighting scale determines the relative value of each factor within the plan as a whole. This provides a definite, individualized clinical ladder, because the weight values usually reflect the department's philosophy.

III. Clinical Positions for Each Level

The clinical positions at each level should be a finite number. The specific numbers should reflect the clinical needs and money available. The process of incorporating the number of positions can be staggered over four or five years so as to decrease the overall financial impact, as seen in Table 4. A suggested four-year implementation plan allows for the following:

Year One

1. Two (2) clinical specialists—new positions

Table 2. Cost to recruit and orient an experienced nurse

Approximately 88 experienced nurses hired in FY '82		
A. General orientation		\$ 334.00
GSN \$9.00 x 32 hr.	(288.00)	
Instructor \$10.30 x 32 hr. x		
12 sessions ÷ 88	(46.00)	
B. Clinical orientation (3 weeks average)		2,160.00
GSN \$9.00 x 120 hours	(1,080.00)	
GSN (Buddy) (\$9.00 x 120	(1,080.00)	
hours)		
C. Average Recruitment Cost per RN		368.00
D. Average Personnel Orientation Cost per RN		3.92
	*TOTAL \$2,865.92	
*Per Nurse		

Table 4 Proposed implementation of clinical ladder positions

FY '83

January '83	Clinical Specialist	\$ 12,500
April '83	Clinical Specialist	6,250
	Six Clinician III	30,000
	Subtotal	\$ 48,750
	Total 2 Clinical Specialists 6 Clinician III	
	Reduction of 3 GSN positions April '83	— \$ 13,500
	TOTAL	\$ 35,250

FY '84

July '83	Clinical Specialist	\$25,000
October '83	Two Clinician III	30,000
	Eight Clinician II	6,000
January '84	Clinical Specialist	12,500
	Two Clinician III	20,000
	Eight Clinician II	4,000
April '84	Two Clinician III	10,000
	Eight Clinician II	2,000
	Subtotal	\$109,500
	Total 2 Clinical Specialists 6 Clinician III 24 Clinician II	
	Reduction of 3 GSN positions One each in October, January, and April	— \$ 27,000
	TOTAL	\$ 82,500

FY '85

July '84	Two Clinical Specialists	\$ 50,000
	Two Clinician III	40,000
October '84	Two Clinician III	30,000
January '85	Two Clinician III	20,000
April '85	Two Clinician III	10,000
	Subtotal	\$150,000
	Total 2 Clinical Specialists 8 Clinician III	
	Reduction of 4 GSN positions One each in January, October, January and April	— \$ 45,000
	TOTAL	\$105,000

FY '86

July '85	Three Clinician III	\$ 60,000
	Six Clinician II	6,000
October '85	Six Clinician II	4,500
January '86	Three Clinician III	30,000
	Six Clinician II	3,000
April '86	Six Clinician II	1,500
	Subtotal	\$105,000
	Total 6 Clinician III 24 Clinician II	
	Reduction of 3 GSN positions 1.5 in July and January	— \$ 40,500
	TOTAL	\$ 64,500

2. Six (6) clinician III—3 new positions, 3 GSN upgrading

Year Two

1. Two (2) clinical specialists—new positions
2. Six (6) clinician III—3 new positions, 3 GSN upgrading
3. Twenty-four (24) clinician II—upgrading 24 GSN positions

Year Three

1. Two (2) clinical specialists—new positions
2. Eight (8) clinician III—4 new positions, 4 GSN upgrading

Year Four

1. Six (6) Clinician III—3 new positions, 3 GSN upgradings
2. Twenty-four (24) clinician II—upgrading 24 GSN positions

The early implementation of clinical specialist positions is particularly important. These new clinical positions are needed to provide sufficient clinical expertise and develop-

Table 5. Clinical Promotion Assessment Committee.

Committee Responsibilities

1. Establish standard procedure for processing candidates
 - A. Review evidence of candidate's performance as submitted by candidate to committee
 1. Care plans and patient assessments
 2. Evidence of discharge planning
 3. Education program participation—attendance, presenter, evidence of self-initiative
 4. Committee membership and participation on same
 5. Recommendations for promotion from supervisor and a coworker in an advanced position who has observed performance.
 6. Committee may require retrospective chart review to provide evidence of ongoing performance
 7. Committee may observe performance of candidate
 - B. Committee interviews candidate and explores questions to assist in assessing qualifications for promotion

Promotional Process

1. Committee reaches a recommendation within 30 days of receipt of evidence material and forwards recommended decision to coordinator
 - A. Provides written summary of decision to candidate and coordinator, identifying strengths and weaknesses
 - B. Meets with candidate, if so desires, to review recommendations
- II. Final approval for advancement rests with the coordinator. In most cases, the coordinator will accept the recommendation of the committee. Should the coordinator disagree with the committee recommendation, the Assistant Director or Director of Nursing will review the material

Committee Membership

Two staff nurses, two members of nursing management, one staff development instructor, one nurse practitioner, one clinical specialist.

In addition, the committee may call upon clinical experts from specialty areas as needed.

ment of the clinical nursing staff. Therefore, the ladder, in essence, will be implemented from two directions at once.

IV. Implementation

Once the levels and available positions are defined, the plan must gain administration approval. Having accomplished the required approvals, the actual implementation with the nursing staff should occur smoothly if the com-

mittee has maintained open communication throughout. Series of meetings with the nursing staff, supervisors, and management should be held in order to assure a complete understanding of the clinical ladder, its requirements, and its policies. The initial promotions in the first year should occur according to the procedures to be followed in subsequent months. A Clinical Promotion Assessment Committee is suggested to allow an objective evaluation for the finite numbers of available positions.

Table 5. Clinical ladder levels.

Position Description: General Staff Nurse (Clinical Step I)	Position Description: Clinician III (Clinical Step III)
General Description: The general staff nurse is accountable to the standard of practice described in the Clinician II job description but will be expected to perform as a beginning practitioner only. She participates as a member of the patient care team and cares for selected patients. Through the formalized orientation program, she becomes knowledgeable about department procedures, policies, and standards of care related to the patient. The general staff nurse functions under, and is responsible to, the supervisor. Education: Graduate of an accredited school of nursing Experience: No experience on returning after being inactive. Experienced nurse will fit into this level during the orientation/probationary period. Minimum time requirement in position: Graduate nurse or inactive nurse—6 to 18 months Experienced nurse—probationary period Requirements: Acquires 5 contact hours annually Current CPR certification	General Description: The Clinician III demonstrates proficiency in administering all components of the nursing process to individual patients or a group of patients. The clinician III functions under the direction of the head nurse and may provide clinical supervision of general staff and clinician II nurses and of nonprofessional and paraprofessional staff. The clinician III participates in nursing or multidisciplinary committees and projects in the planning and evaluation of nursing care. Education: Graduate of an accredited school of nursing. BSN and 5 years nursing experience or certification and 8 years experience required Experience: Promotion to clinician III—three years in nursing required Hiring into clinician III—three years of nursing with recent experience in comparable clinician III position Must have a minimum of 2 years experience in specialty Employment Status: Must work full-time Requirements: Acquires 15 contact hours annually Current CPR certification
Position Description: Clinician II (Clinical Step II)	Position Description: Clinical Specialist
General Description: The clinician II demonstrates proficiency in administering fundamentals of the nursing process. She contributes to the nursing assessment and the development of the nursing plan. The clinician II implements nursing measures as described in the care plan and participates in the evaluation of nursing care. Functioning under direct supervision of the supervisor, the clinician II shall be responsible for individual patients or an entire patient population. Education: Graduate of an accredited school of nursing. Must have BSN and 2 years of nursing experience or non-BSN with 5 years nursing experience Experience: Promotion to clinician II—must have 18 months of experience Hiring into clinician II—must have 18 months of experience with six months in a comparable position Employment Status: Must work full-time Requirements: Acquires 10 contact hours annually Current CPR certification	General Description: The clinical specialist demonstrates advanced proficiency in administering the nursing process and serves as a clinical resource person to other members of the nursing staff in administering the nursing process. The clinical specialist shares responsibility for program development with other nursing leaders and supervises the delivery of care for a defined patient population. The clinical specialist chairs nursing committees, designs and directs nursing projects or research evaluation activities, and represents the department of nursing in hospital or community affairs. Education: Graduate of an accredited school of nursing. Master's degree in nursing Experience: 5 years nursing experience (minimum 2 to 3 years in specialty) Employment Status: Full-time preferred Responsible to: Coordinator for division Requirements: Acquires 15 contact hours annually

Table 7. Guidelines for clinical ladder

1. All new hires must be no higher than clinical step 1. A minimum of four months hospital employment is required before promotion to an advanced ladder level. The Clinical Assessment Promotion Committee will look for evidence that the candidate meets some criteria for the advanced ladder position.
2. No advancement within the clinical ladder can occur without a Clinical Promotion Assessment Committee recommendation.
3. A nurse may apply for an advancement on a comparable unit.
4. If an opening occurs in an area in which the nurse is not currently employed and experience requirements are met, the nurse may maintain her current level for a three-month period. At the end of three months, a performance evaluation is completed. Results of the performance evaluation will determine if the individual retains current position or is reclassified to a lower level.
5. No minimal time need be spent at any level as long as experience requirements are met. However, candidates for promotion must clearly demonstrate that they consistently meet criteria for their current level before promotion will be considered.
6. Jumping or "skipping" levels is not prohibited, as long as the candidate demonstrates that she or he consistently meets criteria for the current level.
7. Candidates for advancement must have a discipline-free record for a minimum of one year (before requesting advancement (that is, written disciplinary actions).
8. Yearly evaluations are to be completed by supervisors on nurses at all levels. If an individual's practice does not meet specified criteria, a written record of deficiencies is to be made. If, after four months, the individual does not demonstrate satisfactory performance of all criteria, she or he is reclassified to a lower level.
9. If a nurse is turned down for an advanced position because criteria are not met, the Clinical Ladder Promotion Committee will recommend a "Growth Plan," specifying recommendations for eliminating deficits as well as a time period before reapplication can be made.
10. Grievances regarding reclassification to a lower level are to first be referred to Clinical Ladder Promotion Committee for review and recommendation. If the nurse is not satisfied with the recommendation of this group, the specified hospital grievance process can be initiated.

The Clinical Promotion Assessment Committee should be a standing committee of the nursing service department. Its purpose is to review and recommend professional nurse candidates for advancement on the clinical ladder. The committee should be responsible to the director of nursing for making promotion recommendations.

It is suggested that the committee be composed of one staff nurse, two members of nursing management, one nursing education instructor, and a clinical expert (clinical nurse associate and, later, a clinical specialist). To qualify for committee membership, the person must possess knowledge of evaluation and be able to make objective decisions. The committee responsibilities are found in Table 5 as a sample for consideration.

Policies need to be defined regarding hiring into the ladder levels, promotion, demotion, and so forth. For example, some issues to be considered include the following:

1. The nurse must demonstrate a sustained level of excellence. Should she (or he) not continue to meet the level criteria, it will be necessary to demote that person to the appropriate level.
2. Should the committee deny promotion, the candidate may reapply at such time as she can provide the required evidence of sustained demonstrated practice that meets the level criteria.
3. Promotion can occur only when an advanced position is open.
4. A nurse may be hired into an open advanced position provided that the requirements of the position are met.
5. A nurse who transfers from one unit to another will maintain the performance level for three months, at the end of which time she will be reassessed for performance level on the new unit.
6. The promotion to a higher level, with the accompanying salary increase, will in no way affect the longevity raise due the employee on her anniversary.

7. The candidate shall be responsible for initiating the request for promotion and will supply all of the required documentation supporting her performance level.

Table 6 outlines the clinical ladder levels and brief job descriptions developed for each level that will be used at the Greater Baltimore Medical Center, and Table 7 summarizes the guidelines. We have also developed job descriptions, weighted job analyses, and evaluation forms based on these descriptions.**

References

1. Ulsafer-Van Lanen, J., Lateral promotion keeps skilled nurses in direct patient care, *Hospitals*, Vol. 55, No. 5, March, 1981, pp. 87-90.
2. LaViolette, S., What does it take to stem turnover, flight from field?, *Modern Health Care*, May 1980.
3. Anderson, M. I., and Denjes, M. I., A ladder for clinical advancement in nursing practice: Implementation, *JONA*, Vol. 4, No. 2, March/April 1974, pp. 16-22.
4. Bracken, R. L., and Christman, L., An incentive program designed to develop and reward clinical competence, *JONA*, Vol. 7, No. 10, December, 1977, pp. 8-18.
5. Haymor, P., Career ladder—back to the bedside, *Supervisor Nurse*, Vol. 9, No. 2, February, 1978, pp. 33-36.
6. *Ibid.*
7. *Ibid.*
8. Ulsafer-Van Lanen, *op.cit.*
9. Zimmer, J. J., Rationale for a ladder for clinical advancement, *JONA*, Vol. 1, No. 11, November/December, 1972, pp. 18-24.
10. Alt, J. M., Bates, M. D., Gilmore, M. A., Houston, G. R., and Stoner, R. S., New hope for 'hands-on' nurses: Clinical Promotions, *NR*, June 1980, pp. 49-51.
11. Haymor, *op.cit.*
12. Ulsafer-Van Lanen, *op.cit.*
13. Seybolt, J. W., Pavett, C., and Walker, D. D., Turnover among nurses: It can be managed, *Journal of Nursing Administration*, Vol. 8, No. 9, September, 1978, pp. 4-9.

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